

**What is claimed is:**

1. An RF testing method of an electronic device in conjunction with production of the electronic devices, the method comprising:  
measuring at least one RF property of the electronic device under  
5 test using at least one sensor outputting at least one measurement signal,  
performing comparison between the at least one measurement signal and at least one corresponding reference signal, and  
determining defectiveness of the electronic device based on the comparison.
- 10 2. The method of claim 1, further comprising  
changing the states of the electronic device sequentially, and  
performing comparison between the at least one measurement signal and the at least one corresponding reference signal related to the sequences of the states of the electronic device.
- 15 3. The method of claim 1, further comprising  
performing comparison between at least one measurement signal and at least one corresponding reference signal representing an electronic device without defects, the comparison measuring similarity between the compared signals,  
20 determining the defectiveness of the electronic device as acceptable, if the similarity is higher than a predetermined threshold, and  
determining the defectiveness of the electronic device as unacceptable, if the similarity is the same as the predetermined threshold or lower than the predetermined threshold.
- 25 4. The method of claim 3, further comprising  
forming a comparison factor measuring similarity between the compared signals in the comparison,  
determining the defectiveness of the electronic device as acceptable, if the comparison factor has a higher value than a predetermined threshold value, and  
30 determining the defectiveness of the electronic device as unacceptable, if the comparison factor has the same value as a predetermined value or a lower value than the predetermined threshold value.
5. The method of claim 1, further comprising

performing comparison between the at least one measurement signal and at least one corresponding reference signal representing an electronic device with at least one defect, the comparison measuring similarity between the compared signals,

5           determining the defectiveness of the electronic device as unacceptable, if the similarity is the same as a predetermined threshold or higher than the predetermined threshold, and

          determining the defectiveness of the electronic device as acceptable, if the similarity is lower than the predetermined threshold.

10           6. The method of claim 5, further comprising  
          forming a comparison factor measuring similarity between the compared signals in the comparison,

          determining the defectiveness of the electronic device as unacceptable, if the comparison factor has the same value as a predetermined threshold value or a higher value than the predetermined threshold value, and

15           determining the defectiveness of the electronic device as acceptable, if the comparison factor has a lower value than the predetermined threshold value.

20           7. The method of claim 5, further comprising  
          using a reference signal representing an electronic device with at least one known defect, and

          determining the type of defect in the electronic device according to the at least one known defect.

25           8. The method of claim 1, further comprising  
          comparing at least two measurement signals for determining defectiveness of the electronic device.

          9. The method of claim 1, further comprising at least one measurement of the following: measuring audio, measuring analog signaling, measuring digital signaling, measuring optical signaling and mechanical measurements, the measurement performed by at least one sensor outputting at least one measurement signal,

30           performing comparison between the at least one measurement signal and at least one corresponding reference signal, and

determining defectiveness of the electronic device based on the comparison.

10. An RF testing method of a mobile phone in conjunction with production of the mobile phones, the method comprising:

- 5       measuring at least one RF property of the mobile phone under test using at least one sensor outputting at least one measurement signal, performing comparison between the at least one measurement signal and at least one corresponding reference signal, and determining defectiveness of the mobile phone based on the comparison.
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11. An RF testing arrangement of an electronic device in conjunction with production of the electronic devices, the arrangement comprising:

- at least one sensor outputting at least one measurement signal relating to at least one RF property of the electronic device under test,
- 15       a reference supply for providing at least one reference signal, a comparator for performing comparison between the at least one measurement signal and at least one corresponding reference signal, and a decision unit for determining defectiveness of the electronic device based on the comparison.

- 20       12. The arrangement of claim 11, further comprising a controller for changing the states of the electronic device sequentially, the comparator being configured to perform the comparison between the at least one measurement signal and the at least one corresponding reference signal related to the sequences of the states of the electronic device.

- 25       13. The arrangement of claim 11, wherein the comparator is configured to perform the comparison measuring similarity between the at least one measurement signal and the at least one corresponding reference signal representing an electronic device without defects,

- the decision unit is configured to determine the defectiveness of the electronic device as acceptable, if the similarity is higher than a predetermined threshold, and
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the decision unit is configured to determine the defectiveness of the electronic device as unacceptable, if the similarity is the same as the predetermined threshold or lower than the predetermined threshold.

14. The arrangement of claim 13, wherein the comparator is configured to form a comparison factor measuring similarity between the compared signals,

the decision unit is configured to determine the defectiveness of the  
5 electronic device as acceptable, if the comparison factor has a higher value than a predetermined threshold value, and

the decision unit is configured to determine the defectiveness of the electronic device as unacceptable, if the comparison factor has the same value as a predetermined value or a lower value than the predetermined threshold  
10 value.

15. The arrangement of claim 11, wherein the comparator is configured to perform the comparison measuring similarity between the at least one measurement signal and at least one corresponding reference signal representing an electronic device with at least one defect,

the decision unit is configured to determine the defectiveness of the  
15 electronic device as unacceptable, if the similarity is the same as a predetermined threshold or higher than the predetermined threshold, and

the decision unit is configured to determine the defectiveness of the electronic device as acceptable, if the similarity is lower than the predetermined  
20 threshold.

16. The arrangement of claim 15, wherein the comparator is configured to form a comparison factor measuring similarity between the compared signals in the comparison,

the decision unit is configured to determine the defectiveness of the  
25 electronic device as unacceptable, if the comparison factor has the same value as a predetermined threshold value or a higher value than the predetermined threshold value, and

the decision unit is configured to determine the defectiveness of the electronic device as acceptable, if the comparison factor has a lower value  
30 than the predetermined threshold value.

17. The arrangement of claim 15, wherein the reference supply is configured to provide a reference signal representing an electronic device with at least one known defect, and the decision unit is configured to determine the

type of defect in the electronic device according to the at least one known defect.

18. The arrangement of claim 11, wherein the comparator is configured to compare at least two measurement signals for determining defectiveness of the electronic device.

19. The arrangement of claim 11, wherein at least one sensor is configured to perform at least one measurement of the following: measuring audio, measuring analog signaling, measuring digital signaling, measuring optical signaling and mechanical measurements, and output at least one measurement signal,

the reference supply is configured to provide at least one corresponding reference signal,

the comparator is configured to perform comparison between the at least one measurement signal and at least one corresponding reference signal, and

the decision unit is configured to determine defectiveness of the electronic device based on the comparison.

20. An RF testing arrangement of a mobile phone in conjunction with production of the mobile phones, the arrangement comprising:

at least one sensor outputting at least one measurement signal relating to at least one RF property of the mobile phone under test,

a reference supply for providing at least one reference signal,

a comparator for performing comparison between the at least one measurement signal and at least one corresponding reference signal, and

a decision unit for determining defectiveness of the mobile phone based on the comparison.